REPLACEMENT SHEET
Drawing Sheet 1 of 19
Title: COMMAND-LINE INTERFACE SYSTEM AND METHOD FOR JAVA MESSAGE SERVICE MARK-UP LANGUAGE
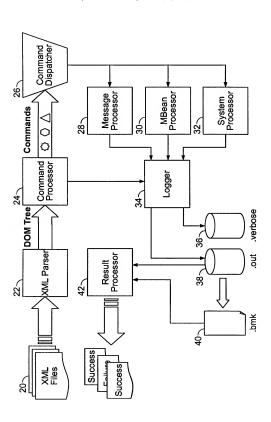Inventors: Kathiravan Sengodan
Application No.: 10/601,929   Filing Date: June 23, 2003
Docket No.:   BEAS-01351US3
Attorney: Karl F. Kenna   Telephone No. (415) 362-3800

FIG. 1

REPLACEMENT SHEET
Drawing Sheet 2 of 19
Title: COMMAND-LINE INTERFACE SYSTEM AND METHOD FOR JAVA MESSAGE SERVICE MARK-UP LANGUAGE
Inventors: Kathiravan Sengodan
Application No.: 10/601,929   Filing Date: June 23, 2003
Docket No.: BEAS-01351US3
Attorney: Karl F. Kenna   Telephone No. (415) 362-3800

FIG. 2

REPLACEMENT SHEET
Drawing Sheet 3 of 19
Title: COMMAND-LINE INTERFACE SYSTEM AND METHOD FOR JAVA MESSAGE SERVICE MARK-UP LANGUAGE
Inventors: Kathiravan Sengodan
Application No.: 10/601,929   Filing Date: June 23, 2003
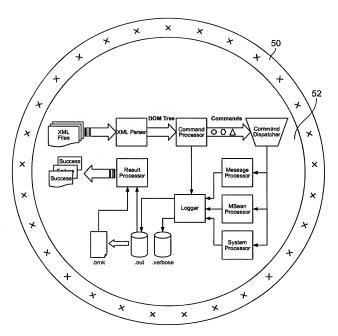Docket No.: BEAS-01351US3
Attorney: Karl F. Kenna   Telephone No. (415) 362-3800

FIG. 3

FIG. 4

Server A 138

Server B 139

Client 120

122

IDE 124

Source Code Editor 126

Design Window 128

GUI

JMSML Engine 130

JMSML Program 134

JMSML Program 136

FIG. 5

REPLACEMENT SHEET
Drawing Sheet 6 of 19
Title:COMMAND-LINE INTERFACE SYSTEM AND METHOD FOR JAVA MESSAGE SERVICE MARK-UP LANGUAGE
Inventors: Kathiravan Sengodan
Application No.: 10/601,929   Filing Date: June 23, 2003
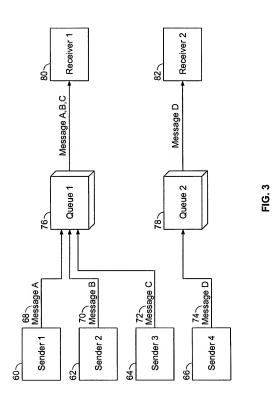Docket No.: BEAS-01351US3
Attorney: Karl F. Kenna   Telephone No. (415) 362-3800

FIG. 6

REPLACEMENT SHEET
Drawing Sheet 7 of 19
Title: COMMAND-LINE INTERFACE SYSTEM AND METHOD FOR JAVA MESSAGE SERVICE MARK-UP LANGUAGE
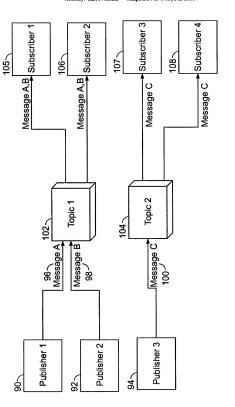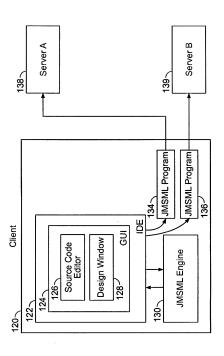Inventors: Kathiravan Sengodan
Application No.: 10/601,929   Filing Date: June 23, 2003
Docket No.: BEAS-01351US3
Attorney: Karl F. Kenna   Telephone No. (415) 362-3800

JMSML - C:\jmsml\jmstest.xml

File Edit Search Project Run Help

200

202

- JTree
- colors
- sports
- food
- [jmsml: null]
  - [scenario: null]
    - [purpose: null]
    - [expectedresult: null]
    - [#comment: <operation Class="mbean"
    - [#text: Add]
      - [operation: null]
      - [operation: null]
      - [operation: null]
    - [#text: List]
      - [operation: null]
    - [#text: Send]
      - [operation: null]
    - [#text: Receive]
      - [operation: null]
    - [#text: Remove]
      - [operation: null]
    - [#comment: <operation Class="mbean"

206

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE jmsml PUBLIC "-//BEA Systems Inc//DTD JMSML Specification 1.0 JMSML//EN" "jmsml.dtd">

<jmsml>
    <scenario Name="Dynamic Queue creation" Verify="false">
        <purpose>
            To test the dynamic creation of queue
        </purpose>
        <expectedresult>
            JMS queue destination should be successfully created with the specified attributes. In order to verify th
are two additional operations are done as below.

1. Take the statistics information of the JMSServer "Warehouse" before and after the creation of the queue destin
see the newly created queue is been added the current destination count of the JMSServer "Warehouse".

2. A sender and receiver will be created to send and receive a text message to and from the newly created "order

If the above two operations are successful, the test is declared as PASSED. Otherwise the test is declared as FA
        </expectedresult>
        <operation Class="mbean" Name="Warehouse" Targets="examplesServer" Type="JMSServer">
            Add
        </operation>
        <operation Class="mbean" Name="Warehouse" Type="JMSServer">
```

208

jmstest.xml   Source | Design   **214** **216**

Line 1   Col 1   Opened   INS

204

```
JMSServer : Warehouse was added to server : examplesServer
Error adding JMSServer : Warehouse
Exception: com.bea.jmsml.engine.JMSMLException: weblogic.management.MBeanCreationException: - with nested exception:
[java.management.InstanceAlreadyExistException]: com.bea.jmsml.engine.JMSMLException: examples/name=Warehouse,Type=JMSServer]
Flushing out and closing site
Name                      = Warehouse
Targets[0]                = examplesServer
BytesMaximum              = -1
BytesThresholdHigh        = -1
BytesThresholdLow         = -1
MessagesMaximum           = -1
MessagesThresholdHigh     = -1
MessagesThresholdLow      = -1
BytesPagingEnabled        = false
MessagePagingEnabled      = false
Name                      = Warehouse
```

210 Output | Error | Verbose

212 Opened C:\jmsml\jmstest.xml

FIG. 7

REPLACEMENT SHEET
Drawing Sheet 8 of 19
Title: COMMAND-LINE INTERFACE SYSTEM AND METHOD FOR JAVA MESSAGE SERVICE MARK-UP LANGUAGE
Inventors: Kathiravan Sengodan
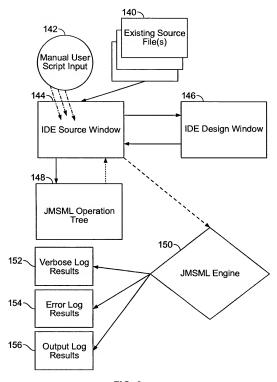Application No.: 10/601,929   Filing Date: June 23, 2003
Docket No.: BEAS-01351US3
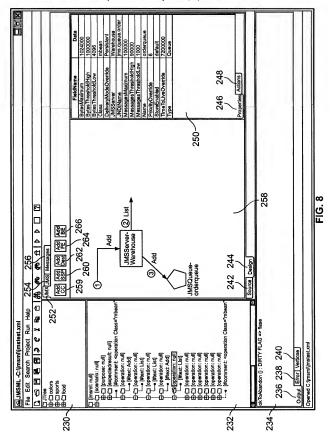Attorney: Karl F. Kenna   Telephone No. (415) 362-3800

FIG. 8

REPLACEMENT SHEET
Drawing Sheet 9 of 19
Title: COMMAND-LINE INTERFACE SYSTEM AND METHOD FOR JAVA MESSAGE SERVICE MARK-UP LANGUAGE
Inventors: Kathiravan Sengodan
Application No.: 10/601,929   Filing Date: June 23, 2003
Docket No.: BEAS-01351US3
Attorney: Karl F. Kenna   Telephone No. (415) 362-3800

FIG. 9

REPLACEMENT SHEET
Drawing Sheet 10 of 19
Title: COMMAND-LINE INTERFACE SYSTEM AND METHOD FOR JAVA MESSAGE SERVICE MARK-UP LANGUAGE
Inventors: Kathiravan Sengodan
Application No.: 10/601,929   Filing Date: June 23, 2003
Docket No.: BEAS-01351US3
Attorney: Karl F. Kenna   Telephone No. (415) 362-3800

JMSML -C:\jmsml\jmstest.xml

File Edit Search Project Run Help

JTree
- colors
- sports
- food

362   364   366

JMX JMS Messages

A B C ...   0101011   □○△   VarVal   <xml>
Text   Byte   Object   Map   Content
368   370   372   374   376   <xml>

Text message for
orderqueue   0101011
                              10101100
380   11101001

TextMessage   ByteMessage

ObjectMessage

352   354

Source   Design

[jmsml: null]
- [scenario: null]
  - [purpose: null]
    - [expected/result: null]
      - [comment: <operation Class="mbean"]
      - [#text: Add]
        - [operation: null]
      - [#text: List]
        - [operation: null]
      - [#text: Add]
        - [operation: null]
        - [operation: null]
      - [#text: Receive]
        - [operation: null]
        - [operation: null]
        - [operation: null]
      - [comment: <operation Class="mbean"]

346 348 350

okToAbandon () : DIRTY FLAG => false

Output Error Verbose

Opened C:\jmsml\jmstest.xml

340   342   344

FieldName   Data
Body   Text message to order qu...
Class   message
Factory   Weblogic.examples.jms.Q...
Name   sender
Queue   jms.queue.order
Type   Text

356   358

Properties Actions

360

378

FIG. 10

REPLACEMENT SHEET
Drawing Sheet 11 of 19
Title: COMMAND-LINE INTERFACE SYSTEM AND METHOD FOR JAVA MESSAGE SERVICE MARK-UP LANGUAGE
Inventors: Kathiravan Sengodan
Application No.: 10/601,929   Filing Date: June 23, 2003
Docket No.: BEAS-01351US3
Attorney: Karl F. Kenna   Telephone No. (415) 362-3800

FIG. 11

JMSML -C:\jmsml\jmstest.xml

File Edit Search Project Run Help

400

402

```
[jmsml: null]
  └ [scenario: null]
     ├ [purpose: null]
     ├ [expectedresult: null]
     ├ [#comment: <operation  Class="mbean"
     ├ [#text: Add]
     ├ [operation: null]
     ├ [operation: null]
     ├ [operation: null]
     ├ [operation: null]
     ├ [#text: List]
     ├ [operation: null]
     ├ [operation: null]
     ├ [#text: Send]
     ├ [operation: null]
     ├ [#text: Receive]
     ├ [operation: null]
     ├ [#text: Remove]
     ├ [operation: null]
     └ [#comment: <operation Class="mbean"
```

JTree
  colors
  sports
  food

Processing data file.....C:\jmsml\jmstest.xml.xml
<jmsml
>
<scenario
Text name = scenario
Name="Dynamic Queue creation"
Verify="false"
>
<purpose>
Unicode: node : purpose

410

Output | Error | Verbose
406
Opened C:\jmsml\jmstest.xml
408

jmstest.xml   Source | Design
412   414   404

Line 1 | Col 1 | Opened INS

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE jmsml PUBLIC "-//BEA Systems Inc//DTD JMSML Specification 1.0 JMSML//EN" "jmsml.dtd">

<jmsml>
  <scenario Name="Dynamic Queue creation" Verify="false">
    <purpose>
      To test the dynamic creation of queue
    </purpose>
    <expectedresult>
      JMS queue destination should be successfully created with the specified attributes. In order to verify th
      are two additional operations are done as below.

      1. Take the statistics information of the JMSServer "Warehouse" before and after the creation of the queue destin
      see the newly created queue is been added the current destination count of the JMSServer "Warehouse".

      2. A sender and receiver will be created to send and receive a text message to and from the newly created "order

      If the above two operations are successful, the test is declared as PASSED. Otherwise the test is declared as FA
    </expectedresult>
    <operation Class="mbean" Name="Warehouse" Targets="examplesServer" Type="JMSServer">
      Add
    </operation>
    <operation Class="mbean" Name="Warehouse" Type="JMSServer">
```

416

REPLACEMENT SHEET
Drawing Sheet 12 of 19
Title: COMMAND-LINE INTERFACE SYSTEM AND METHOD FOR JAVA MESSAGE SERVICE MARK-UP LANGUAGE
Inventors: Kathiravan Sengodan
Application No.: 10/601,929   Filing Date: June 23, 2003
Docket No.: BEAS-01351US3
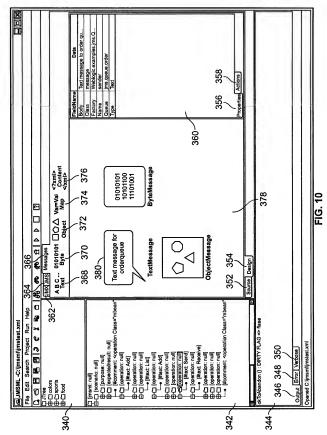Attorney: Karl F. Kenna   Telephone No. (415) 362-3800

JMSML -C:\jmsml\jmstest.xml

File Edit Search Project Run Help

<?xml version="1.0" encoding="UTF-8"?>

jmstest.xml

Source Design

```
<operation
 Class="mbean"
 Name="Warehouse"
 Targets="examplesServer"
 Type="JMSServer">
Add
 User             : null
 Password         : null
 Release          : 7.0
 Console          : false
 Verbose          : false
 SaveConfig       : false
 TestCounterStart : -1
 TestCounterEnd   : -1
 TestCounterStep  : -1
 SilentMode       : false
 SaveConfig       : false
 Operation        : 1
 ParamIndex       : 1
 Count            : 100
 ObjectName       : Warehouse
 ObjectType       : JMSServer
 MessageType      : null
 ListFilter       : null
Attrs[0] = Targets
Values[0] = examplesServer
Constructing the MBeanProcessor
EC : com.bea.jmsml.engine.ExecutionContext@a4e5cd9
IC : javax.naming..InitialContext@akb92a
Broadcaster Name : [Caching Stub] Proxy for examplesLocation=examplesServer,Name=TheLogBroadcaster,Type=LogBroadcasterRuntime
Broadcaster Name : [Caching Stub] Proxy for examplesLocation=examplesServer,Name=TheLogBroadcaster,Type=LogBroadcasterRuntime
Server Name : examplesServer
Server Name : examplesServer
0 session pods are found
0 session pods are found
0 getting destinations from examples,JMSServer
0 getting destinations from examples,JMSServer
3 destinations are found on examples,JMSServer
0 destination keys are found
```

Output | Error | Verbose
Opened C:\jmsml\jmstest.xml

Line 1   Col 1   Opened   INS

JTree
colors
sports
food

420 422 428 424 426 430 432 434 436 438

FIG. 12

Title: COMMAND-LINE INTERFACE SYSTEM AND METHOD FOR JAVA MESSAGE SERVICE MARK-UP LANGUAGE
Inventors: Kathiravan Sengodan
Application No.: 10/601,929   Filing Date: June 23, 2003
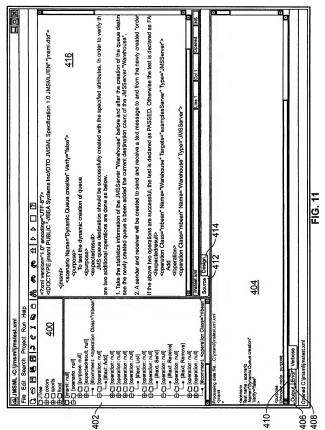Docket No.: BEAS-01351US3
Attorney: Karl F. Kenna   Telephone No. (415) 362-3800

JMSML -C:\jmsml\jmstest.xml

File Edit Search Project Run Help

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE jmsml PUBLIC "-//BEA Systems Inc//DTD JMSML Specification 1.0 JMSML//EN" "jmsml.dtd">

<jmsml>
  <scenario Name="Dynamic Queue creation" Verify="false">
    <purpose>
      To test the dynamic creation of queue
    </purpose>
    <expectedresult>
      JMS queue destination should be successfully created with the specified attributes. In order to verify the
      see the newly created queue is been added the current destination count of the JMSServer "Warehouse".
    </expectedresult>
    <description>
      JMS queue creation information of the JMSServer "Warehouse" before and after the creation of the queue destir
      are two additional operations are done as below.

      1. Take the statistics information of the JMSServer "Warehouse" before and after the creation of the queue destir
      see the newly created queue is been added the current destination count of the JMSServer "Warehouse".

      2. A sender and receiver will be created to send and receive a text message to and from the newly created "orde

      If the above two operations are successful, the test is declared as PASSED. Otherwise the test is declared as FA
    </description>
    <operation Class="mbean" Name="Warehouse" Type="JMSServer">
      <operation Class="mbean" Name="Warehouse" Targets="examplesServer" Type="JMSServer">
      Add
      <operation Class="mbean" Name="Warehouse" Type="JMSServer">
      List
      </operation>
      <operation Class="mbean" Name="Warehouse" Type="JMSServerRuntime">
      List
      </operation>
      <operation BytesMaximum="1024000" BytesThresholdHigh="1000000" BytesThresholdLow="4096" Clas
      rqide="Persistent" JMSServer="Warehouse" JDNIName="ins queue order" MessagesMaximum="100000" Mess
```

jmstest.xml   Source Design

Tree

└ JMSML (various tree nodes)

```
[jmsml: null]
  [scenario: null]
    [purpose: null]
    [expectedresult: null]
    [operation: null]
    [#comment: <operation Class="mbean"
    [operation: null]
      [#text: Add]
    [operation: null]
      [#text: List]
    [operation: null]
      [#text: List]
    [operation: null]
      [#text: Add]
    [operation: null]
    [operation: null]
    [operation: null]
    [operation: null]
    [operation: null]
    [operation: null]
    [#comment: <operation Class="mbean"
```

isOkToAbandon () : DIRTY FLAG => false

Output Error Verbose

Opened C:\jmsml\jmstest.xml

Line   Col   Col/Sel   INS

FIG. 13

440 442 444 446 448 450 452 454 456

REPLACEMENT SHEET
Drawing Sheet 14 of 19
Title: COMMAND-LINE INTERFACE SYSTEM AND METHOD FOR JAVA MESSAGE SERVICE MARK-UP LANGUAGE
Inventors: Kathiravan Sengodan
Application No.: 10/601,929   Filing Date: June 23, 2003
Docket No.: BEAS-01351US3
Attorney: Karl F. Kenna   Telephone No. (415) 362-3800

JMSML -C:\jmsml\jmstest.xml

File Edit Search Project Run Help

JTree
colors
sports
food

`<?xml version="1.0" encoding="UTF-8"?>`

jmstest.xml

Source Design

470 472

474

Line 1   Col 1   Opened   JMS

```
Name                        = Warehouse
Targets[0]                  = examplesServer
BytesMaximum                = -1
BytesThresholdHigh          = -1
BytesThresholdLow           = -1
MessagesMaximum             = -1
MessagesThresholdHigh       = -1
MessagesThresholdLow        = -1
BytesPagingEnabled          = false
MessagesPagingEnabled       = false

Name                        = Warehouse
SessionPoolsCurrentCount    = 0
SessionPoolsHighCount       = 0
SessionPoolsTotalCount      = 0
DestinationsCurrentCount    = 0
DestinationsHighCount       = 0
DestinationsTotalCount      = 0
MessagesCurrentCount        = 0
MessagesHighCount           = 0
MessagesPendingCount        = 0
MessagesReceivedCount       = 0
BytesCurrentCount           = 0
BytesHighCount              = 0
BytesPendingCount           = 0
BytesReceivedCount          = 0
Health - State=HEALTH_OK,ReasonCode=[

Queue Destination : orderqueue was added to JMSServer : Warehouse !
Name                        = orderqueue
JNDIName                    = jms.queue.order
JMSServer                   = Warehouse
StoreEnabled                = default
Type                        = Queue
BytesMaximum                = 1024000
BytesThresholdHigh          = 1000000
BytesThresholdLow           = 4096
MessagesMaximum             = 100000
MessagesThresholdHigh       = 90000
MessagesThresholdLow        = 1000
PriorityOverride            = 6
TimeToLiveOverride          = 7200000
```

Output Error Verbose

Opened C:\jmsml\jmstest.xml

460   462   468   464   466

FIG. 14

FIG. 15

REPLACEMENT SHEET
Drawing Sheet 16 of 19
Title: COMMAND-LINE INTERFACE SYSTEM AND METHOD FOR JAVA MESSAGE SERVICE MARK-UP LANGUAGE
Inventors: Kathiravan Sengodan
Application No.: 10/601,929   Filing Date: June 23, 2003
Docket No.: BEAS-01351US3
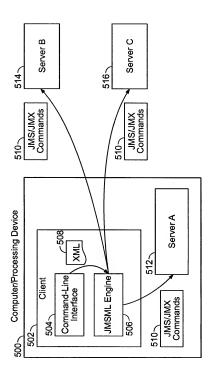Attorney: Karl F. Kenna   Telephone No. (415) 362-3800

530 ─

User Opens Command-Line Interface at Client

532 ─

User Enters Commands to Invoke Java Method

534 ─

Corresponding Command (In XML Format) is Passed to JMSML Engine

536 ─

Engine Generates Appropriate JMS/JMX Commands and Communicates them to Server Results are Optionally Generated

538 ─

(Optionally) Store Results in Results File

FIG. 16

REPLACEMENT SHEET
Drawing Sheet 17 of 19
Title: COMMAND-LINE INTERFACE SYSTEM AND METHOD FOR JAVA MESSAGE SERVICE MARK-UP LANGUAGE
Inventors: Kathiravan Sengodan
Application No.: 10/601,929   Filing Date: June 23, 2003
Docket No.: BEAS-01351US3
Attorney: Karl F. Kenna   Telephone No. (415) 362-3800

FIG. 17

REPLACEMENT SHEET
Drawing Sheet 18 of 19
Title: COMMAND-LINE INTERFACE SYSTEM AND METHOD FOR JAVA MESSAGE SERVICE MARK-UP LANGUAGE
Inventors: Kathiravan Sengodan
Application No.: 10/601,929   Filing Date: June 23, 2003
Docket No.: BEAS-01351US3
Attorney: Karl F. Kenna   Telephone No. (415) 362-3800

580
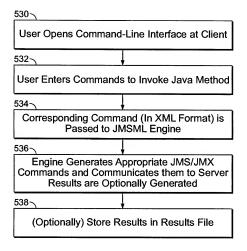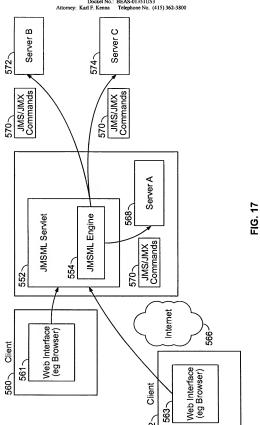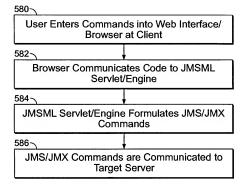| User Enters Commands into Web Interface/ Browser at Client |

582
| Browser Communicates Code to JMSML Servlet/Engine |

584
| JMSML Servlet/Engine Formulates JMS/JMX Commands |

586
| JMS/JMX Commands are Communicated to Target Server |

FIG. 18

JMSML - Web Interface - Microsoft Internet Explorer

File Edit View Favorites Tools Help

← Back ▾ → ▾ ◎ ⬙ ⬛ | ◎ Search ☆ Favorites ⑰ Media ⬙ | ◎⬙ ⬙ ⬛ ▾ ⬙ ⬙ ⬙

Address ⬙ http://172.18.46.49:7001/rnstesthelpers/msmi

JMSML - Web Interface

Please select any type of URL specification and type in the XML operation element to execute JMS functions.

○ URL [   ] :// [   ] : [   ]

⦿ URL
[3] [▾] // [localhost] [▾] : [7001] [▾]

Username: [system]

Password: [gumby1234]

XML File: [   ] [Browse]

[Open above XML file]   OR Enter Operations

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE PUBLIC "-//BEA Systems
Ino//JMS Test Specification 1.0
JMSTest//EN" "jmstest.dtd">

<test
Name="JMSServer_conf_add_default_norm3"
Verify="false">

<operation Class="mbean"
Type="JMSServer" Name="newBE3"
Targets="myserver"
BytesMaximum="1024"
BytesThresholdHigh="512"
BytesThresholdLow="64"
MessagesMaximum="100"
MessagesThresholdHigh="50"
MessagesThresholdLow="10"> Add</operation>
>

<operation Class="mbean"
Type="JMSServer"
Name="newBE3">List</operation>

<operation Class="mbean" Type="Queue"
```

Save Results ☑   Verbose ☐   Release: [6.0] [▾]   [Clear]

[Execute]

Server URL : 13://172.18.46.49:7001

Output

```
JMSServer : newBE3 was added to
server : myserver !
Name                      = newBE3
Targets [0]               = myserver
BytesMaximum              = 1024
BytesThresholdHigh        = 512
BytesThresholdLow         = 64
MessagesMaximum           = 100
MessagesThresholdHigh     = 50
MessagesThresholdLow      = 10
- - - - - - - - - - - - - - - - - - -
Queue Destination : newQ3 was added to
JMSServer : newBE3 !
Name                      = newQ3
JNDIName
qa.jms.destination.newQ3
JMSServer                 = newBE3
StoreEnabled              = default
Type                      = Queue
BytesMaximum              = -1
BytesThresholdHigh        = -1
BytesThresholdLow         = -1
MessagesMaximum           = -1
MessagesThresholdHigh     = -1
```

[Save execution as Test]   [test]

Server URL : 13://172.18.46.49:7001

Verbose

```
Processing data file.... //jms6956.xml
<test
Name="JMSServer_conf_add_default_norm3"
Verify="false"
>

<operation
BytesMaximum="1024"
BytesThresholdHigh="512"
BytesThresholdLow="64"
Class="mbean"
MessagesMaximum="100"
MessagesThresholdHigh="50"
MessagesThresholdLow="10"
Name="newBE3"
Targets="myserver"
Type="JMSServer"
>
Add
User     : null
Password : null
Release  : 6.0
```

600

FIG. 19

⬙ Done

⬙ Internet